

UTAH OIL AND GAS CONSERVATION COMMISSION

REMARKS: WELL LOG ELECTRIC LOGS FILE ☒ WATER SANDS LOCATION INSPECTED SUB. REPORT/abd.

970305 location abandoned eff. 2-28-97

DATE FILED 9-22-95

LAND: FEE & PATENTED FEE STATE LEASE NO.

PUBLIC LEASE NO. PATENTED LAND

INDIAN

DRILLING APPROVED: SEPTEMBER 25, 1995

SPUDDED-IN:

COMPLETED: PUT TO PRODUCING:

INITIAL PRODUCTION:

GRAVITY A.P.I.

GOR:

PRODUCING ZONES:

TOTAL DEPTH:

WELL ELEVATION:

DATE ABANDONED: 2-28-97 LA

FIELD: UNDESIGNATED

UNIT: NA

COUNTY: CARBON

WELL NO. FOTES ET AL 13-91

API NO. 43-007-30287

LOCATION 860' FSL FT. FROM (N) (S) LINE 860' FWL

FT. FROM (E) (W) LINE SW SW

1/4 - 1/4 SEC.

13

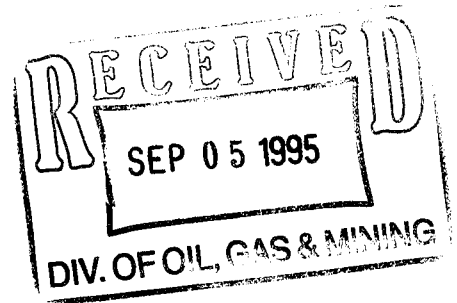
TWP.	RGE.	SEC.	OPERATOR	TWP.	RGE.	SEC.	OPERATOR
14 S	9 E	13	RIVER GAS CORPORATION				



RIVER GAS CORPORATION

511 Energy Center Blvd.
Northport, Alabama 35476
Phone (205) 759-3282
Fax (205) 759-3188

August 30, 1995



Mr. Michael Hebertson
Utah Board of Oil, Gas, and Mining
Suite 350, 3 Triad Center
355 West North Temple
Salt Lake City, Utah 84180-1203

RE: Application for Permit to Drill -
Fotes 13-91, SW 1/4 of SW 1/4 of Sec. 13, T14S, R09E
S.L.B. & M., Carbon County, Utah

Dear Mr. Hebertson:

Enclosed is an original and one copy of an "Application for Permit to Drill" the well described above. Attached to the APD is the following information:

- Attachment #1 - Copy of survey plat of proposed well site
- Attachment #2 - Information regarding use of water at the site
- Attachment #3 - Schematic of B.O.P.
- Attachment #4 - Portion of topographic map indicating proposed well site, planned roads & pipelines, and offset wells within 1 mile-radius
- Attachment #5 - Additional drilling information furnished according to State regulations
- Attachment #6 - Typical road cross-section
- Attachment #7 - Well location map
- Attachment #8 - Evidence of bond sent to State Lands and Forestry Division
- Attachment #9 - Selected Points to be Addressed at On-Site Pre-Drill Evaluation

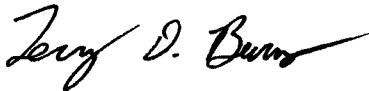
Attachment #10 - Typical Well Site Layout (Production Phase)

As you will notice, a surface land use agreement has not been submitted at this time. We are currently attempting to negotiate such an agreement with Lowdermilk Rock Products.

Also, please accept this letter as our request that all information regarding this permit be kept confidential, if said information is eligible for such consideration. This request is made in accordance with State of Utah Oil and Gas rule # R649-2-11.

Thank you for your assistance. Please feel free to contact me if you have questions.

Sincerely,



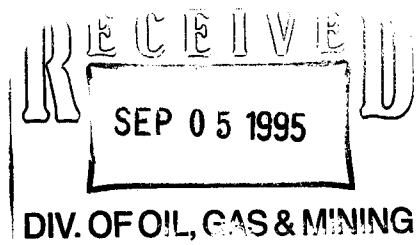
Terry D. Burns

Geologist

cc: Mr. Edward W. Bonner, Utah Department of Natural Resources
Mr. Eric Jones, BLM in Moab, Utah
Mr. Dean Nyffler, BLM in Price, Utah
Mr. Robert A. Hendricks, BLM in Salt Lake City, Utah
Mr. J.R. French, Texaco
Mr. R.A. Lamarre, Texaco
Mr. Gee Lake, Jr., Dominion Reserves

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK				3. Lease Designation and Serial No. Patented Land	
1a. Type of Work DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>				6. If Indian, Allottee or Tribe Name	
b. Type of Well Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other Coalbed Methane <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone <input type="checkbox"/>				7. Unit Agreement Name N/A	
2. Name of Operator River Gas Corporation				8. Farm or Lease Name Fotes et al	
3. Address of Operator 511 Energy Center Boulevard Northport, Al. 35476				9. Well No. 13-91	
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface 860' FWL, 860' FSL, Sec. 13, T14S, R09E At proposed prod. zone same				10. Field and Pool, or Wildcat Wildcat	
14. Distance in miles and direction from nearest town or post office* 3 miles west of Price, Ut.				11. 00, Sec., T., R., M., or Blk. and Survey or Area SW/SW Sec. 13, T14S, R9E	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drilg. line, if any)		16. No. of acres in lease 360		17. No. of acres assigned to this well 40	
18. Distance from proposed location* to nearest well, drilling, completed, or applied for, on this lease, ft. 2800'		19. Proposed depth 2600'		20. Rotary or cable tools Rotary	
21. Elevations (Show whether DF, RT, GR, etc.) 5712' GR surveyed				22. Approx. date work will start* September 20, 1995	
23. PROPOSED CASING AND CEMENTING PROGRAM					
Size of Hole	Size of Casing	Weight per Foot	Setting Depth	Quantity of Cement	
11"	8-5/8"	24#	300'	110 sx	
7-7/8"	5-1/2"	17#	2570'	265 sx	



IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. I hereby certify that this report is true and complete to the best of my knowledge.

Signed Terry D. Burns *Terry D. Burns* Title Geologist

Date August 29, 1995

(This space for Federal or State official use)

API NO. 43-007-30287

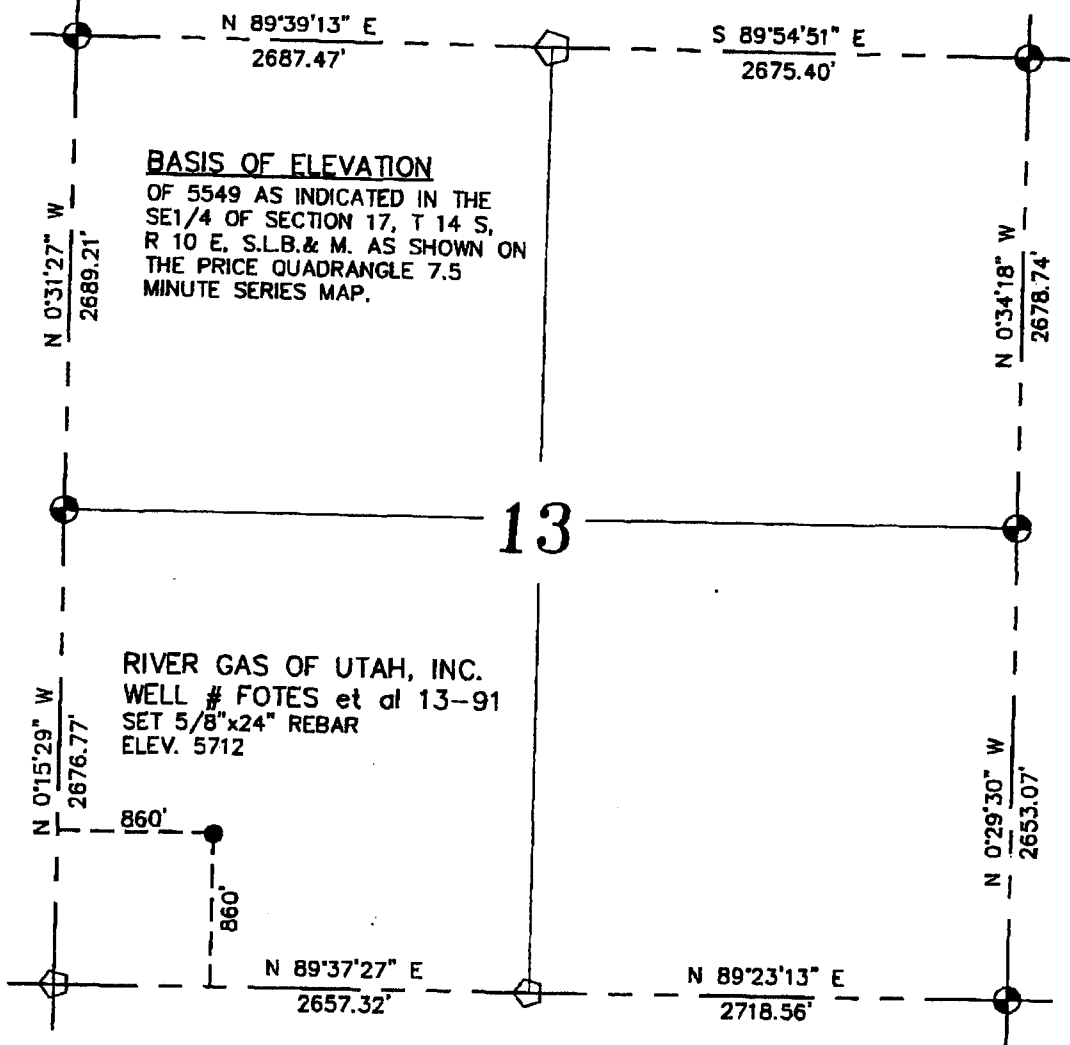
Approved by *J. Matthews* Title *Petroleum Engineer*

Date 9/25/95

Conditions of approval, if any:

TOWNSHIP 14 SOUTH

RANGE 9 EAST



BASIS OF ELEVATION

OF 5549 AS INDICATED IN THE SE1/4 OF SECTION 17, T 14 S, R 10 E, S.L.B. & M. AS SHOWN ON THE PRICE QUADRANGLE 7.5 MINUTE SERIES MAP.

RIVER GAS OF UTAH, INC.
WELL # FOTES et al 13-91
SET 5/8"x24" REBAR
ELEV. 5712

LEGEND

- ⊕ FOUND BRASS CAP
- SEARCHED FOR BUT NOT FOUND
- ◻ FOUND ROCK CORNER

BASIS OF BEARING

BASIS OF BEARING N 0°31'27" W MEASURED BETWEEN THE W1/4 CORNER AND THE NW CORNER OF SECTION 13, TOWNSHIP 14 SOUTH, RANGE 10 EAST, SALT LAKE BASE AND MERIDIAN.



ENGINEER'S CERTIFICATE

I, EVAN E. HANSEN, DO HEREBY CERTIFY THAT I AM A REGISTERED LAND SURVEYOR AND PROFESSIONAL ENGINEER HOLDING CERTIFICATE NO. 145656 AS PRESCRIBED UNDER THE LAWS OF THE STATE OF UTAH. I FURTHER CERTIFY THAT I HAVE MADE A SURVEY OF THE TRACT OF GROUND SHOWN AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

Evan E. Hansen
EVAN E. HANSEN

3/25/95
DATE

SW1/4 SW1/4 SEC. 13, T 14 S, R 9 E, S.L.B. & M.

Empire Engineering

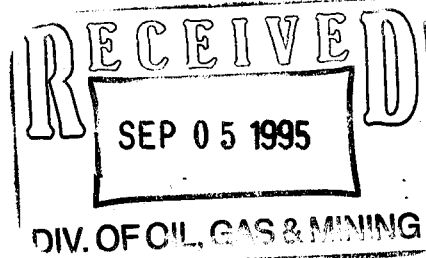
1665 E. Sagewood Rd. Price, Utah 84501

RIVER GAS OF UTAH, INC.
WELL # FOTES et al 13-91

Drawn By: THK	Approved By: EEH	Drawing No. EEOG-95-02
Date: 3-18-95	Scale: 1"=1000'	SHEET 1 OF 2

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

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24. I hereby certify that this report is true and complete to the best of my knowledge.

Signature Terry D. Burns Terry D. Burns Title Geologist

Date August 29, 1995

(This space for Federal or State office use)

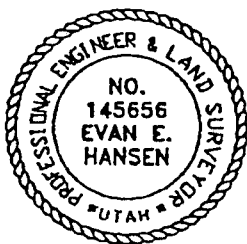
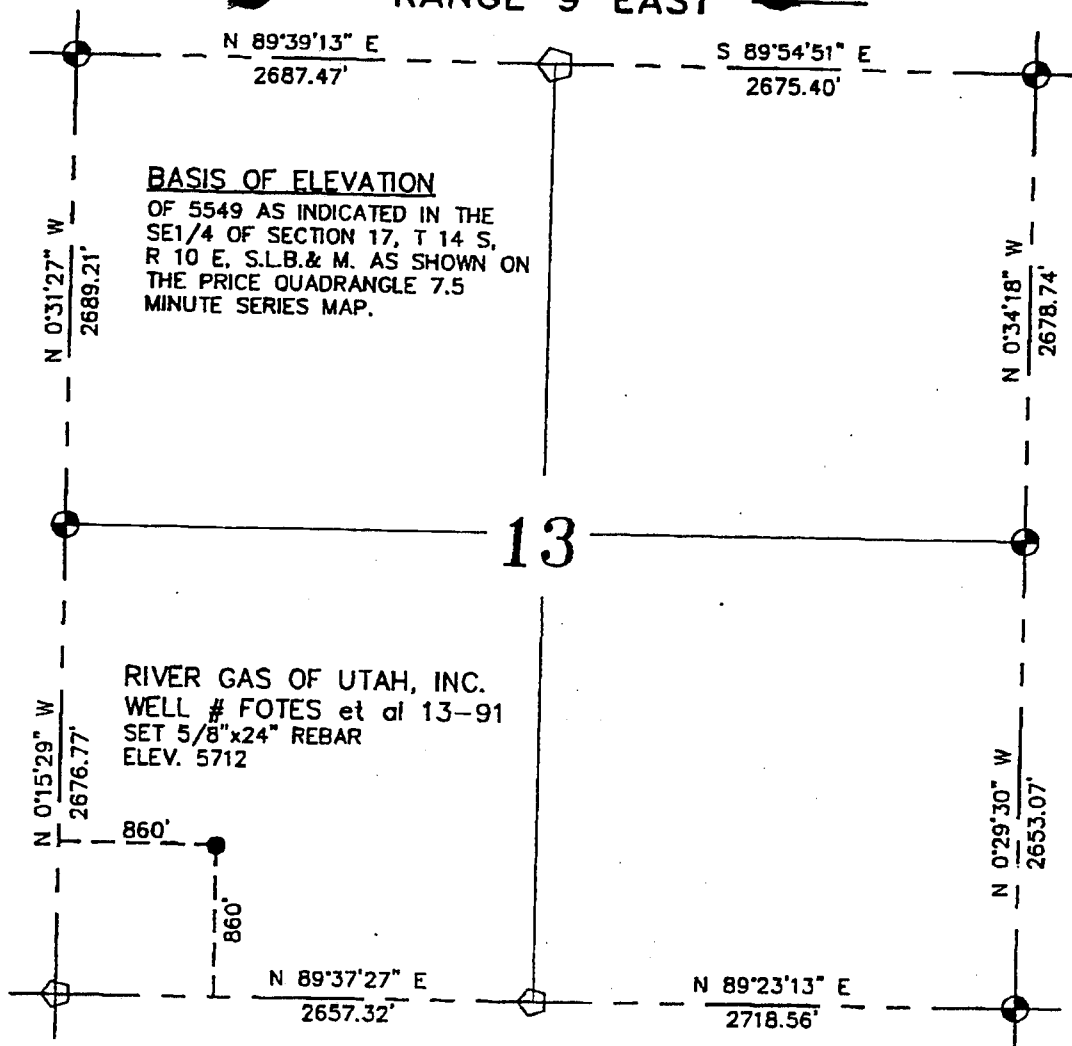
API NO. 43-007-30287

Approved by [Signature]
Conditions of approval, if any:

Approval Date 9/25/95
Title Petroleum Engineer Date 9/25/95

RANGE 9 EAST

TOWNSHIP 14 SOUTH



ENGINEER'S CERTIFICATE

I, EVAN E. HANSEN, DO HEREBY CERTIFY THAT I AM A REGISTERED LAND SURVEYOR AND PROFESSIONAL ENGINEER HOLDING CERTIFICATE NO. 145656 AS PRESCRIBED UNDER THE LAWS OF THE STATE OF UTAH. I FURTHER CERTIFY THAT I HAVE MADE A SURVEY OF THE TRACT OF GROUND SHOWN AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

Evan E. Hansen
EVAN E. HANSEN

DATE

3/25/95

SW1/4 SW1/4 SEC. 13, T 14 S, R 9 E, S.L.B. & M.

Empire Engineering

1665 E. Sagewood Rd. Price, Utah 84501

RIVER GAS OF UTAH, INC.
WELL # FOTES et al 13-91

Drawn By:
THK

Approved By:
EEH

Drawing No.

Date:
3-18-95

Scale:
1"=1000'

EEOG-95-02

SHEET 1 OF 2

RIVER GAS CORPORATION
Additional Drilling Information

Fotes et al 13-91

860' FWL & 860' FSL
Section 13, Township 14 South, Range 09 East

R649-3-4 Permitting of Wells to be Drilled, Deepened or Plugged Back

2.1 Telephone numbers for additional information:

Steven L. Prince	(801)637-8876 Office
Operations Manager	(801)650-1211 Mobile

Fred Passarella	(801)637-8876 Office
Pumper	(801)650-1296 Mobile

Randy Nairemore	(801)637-8876 Office
	(801)650-1210 Mobile

Michael J. Farrens	(205)759-3282 Office
Vice President	(205)758-8535 Home
	(801)650-1162 Mobile

2.2 Lease: Patented Land

2.3 This gas well will be drilled approx. 860' outside the northeast boundary of the Drunkards Wash Unit (UTU 67921X)

2.4 Survey Plat: See Attachment #1

2.5 Water will be purchased from Price River Water Improvement District: See Attachment #2.

2.6 Drilling program.

2.6.1 The following geologic units are expected to be penetrated in the well.

<u>Formation/Unit</u>	<u>Depth (ft)</u>
Upper Mancos Shale	Surface
Blue Gate/Ferron Sandstone	1700
Ferron/Tununk Shale	1990
TD	2600

2.6.2 The coals and sandstones within the Ferron Sandstone Member of the Mancos Shale are expected to be the only gas and water - bearing formations in well, at approx. 1700 - 1870'. No near - surface groundwater is expected to be encountered. 8 5/8" , 24 lb/ft surface casing will be set to 300' and cemented with 110 sacks of class "G" cement with 2% CaCl₂, which has a density of 15.80 lb/gal. 5-1/2" 17# WC75 production casing will be run and cemented with approximately 200 sacks 50/50 Pozmix cement and tail-in with 65 sacks "RFC".

2.6.3 A double gate 3000 psi BOPE will be used with a rotating head. This equipment will be tested to 2100 psi or 70% of the minimum internal yield pressure. All tests will be recorded in a Driller's Report Book. Physical operation of BOP's will be checked on each trip. See Attachment #3 for Schematic.

2.6.4 None.

2.6.5 Mud Program:

Depth

0-300	11" hole	Drill with air, will mud-up if necessary.
300-2600	7-7/8" hole	Drill with air. 400 psi @ 1500-1800 Scf.

2.6.6 Logging Program:

Depth

0-300	Gamma Ray
300-2600	Gamma Ray, Density, Neutron porosity, Induction, Caliper

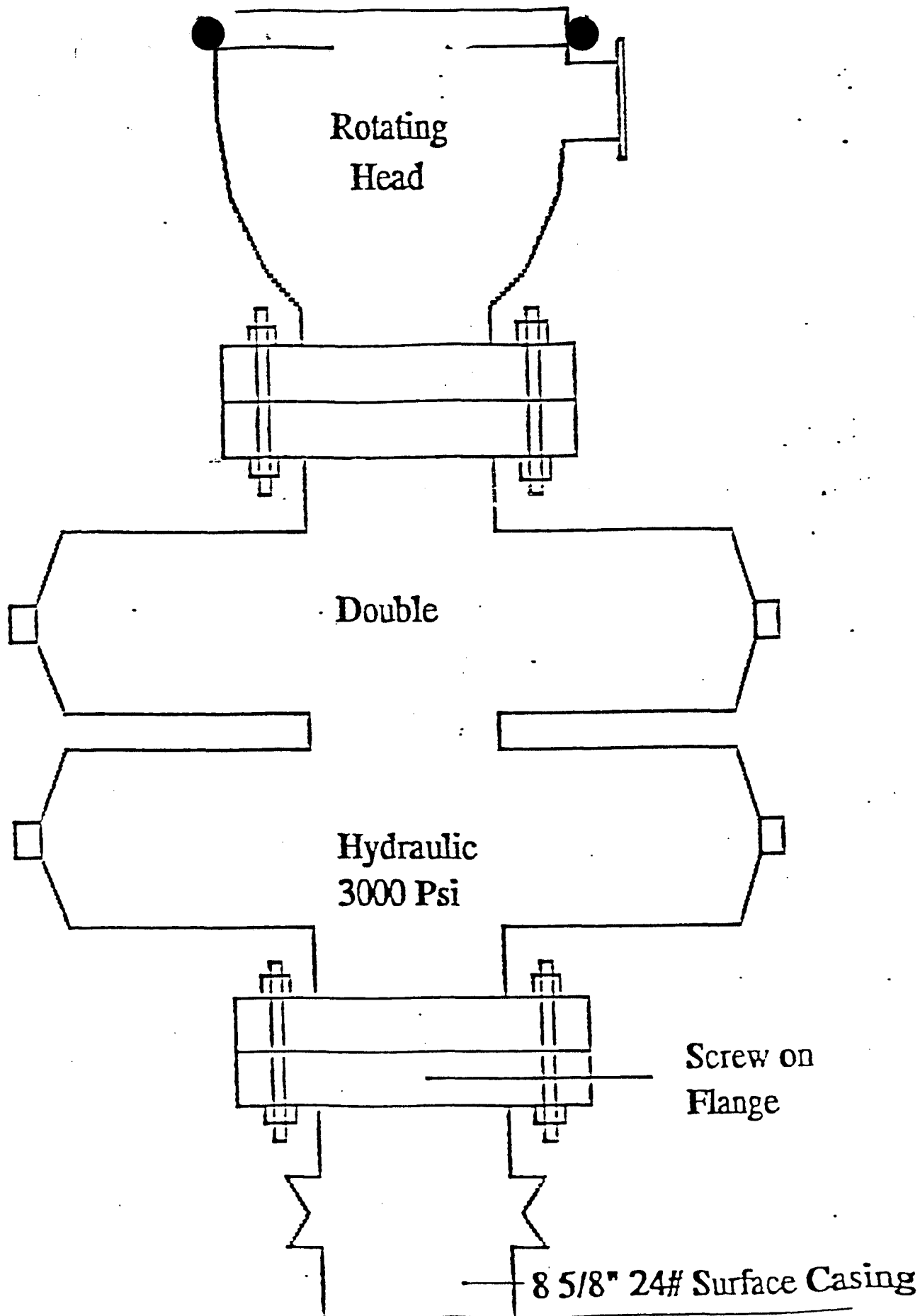
2.6.7 We expect 1100 psi for bottom hole pressure.
No hazards are expected.

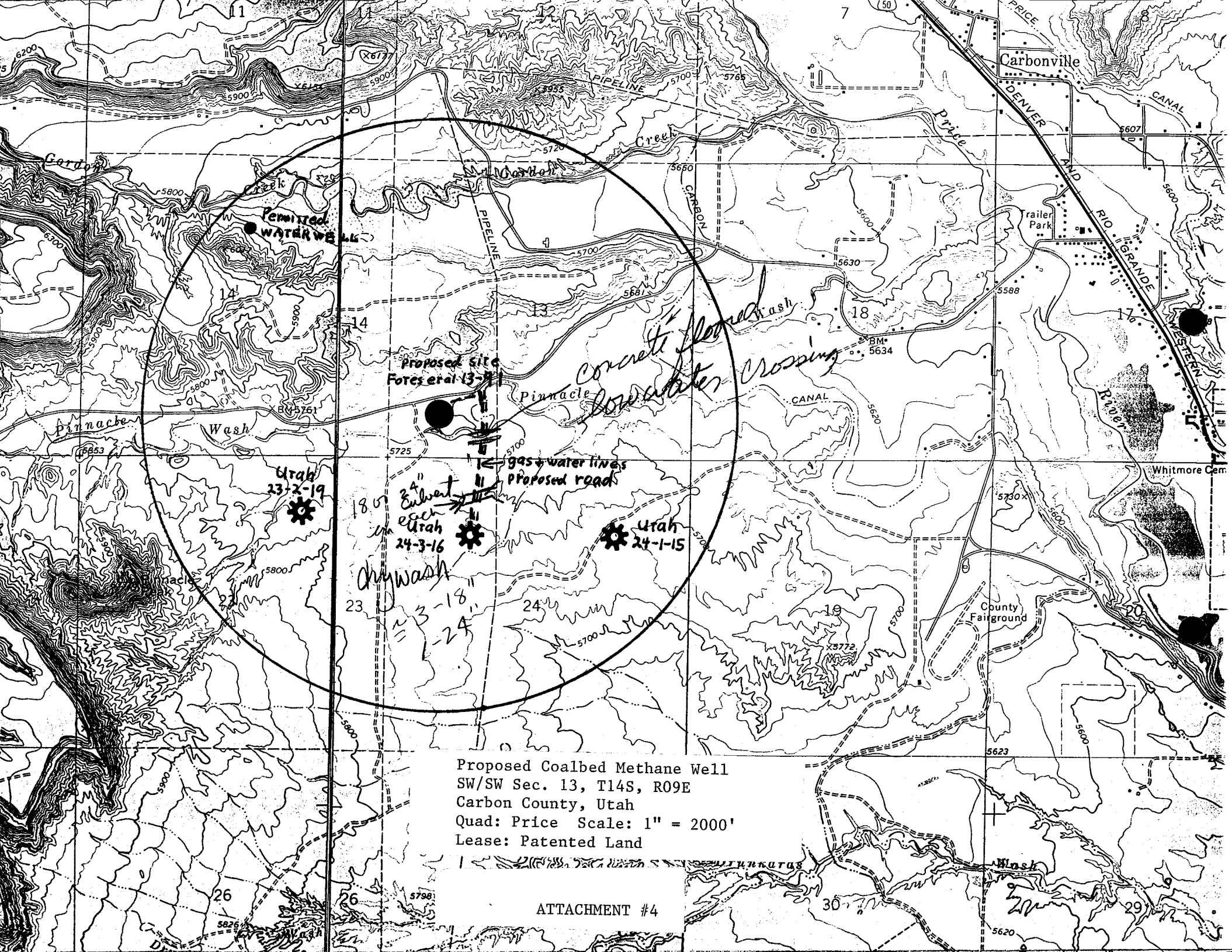
— RIVER GAS OF UTAH, INC. —

ATTACHMENT #2

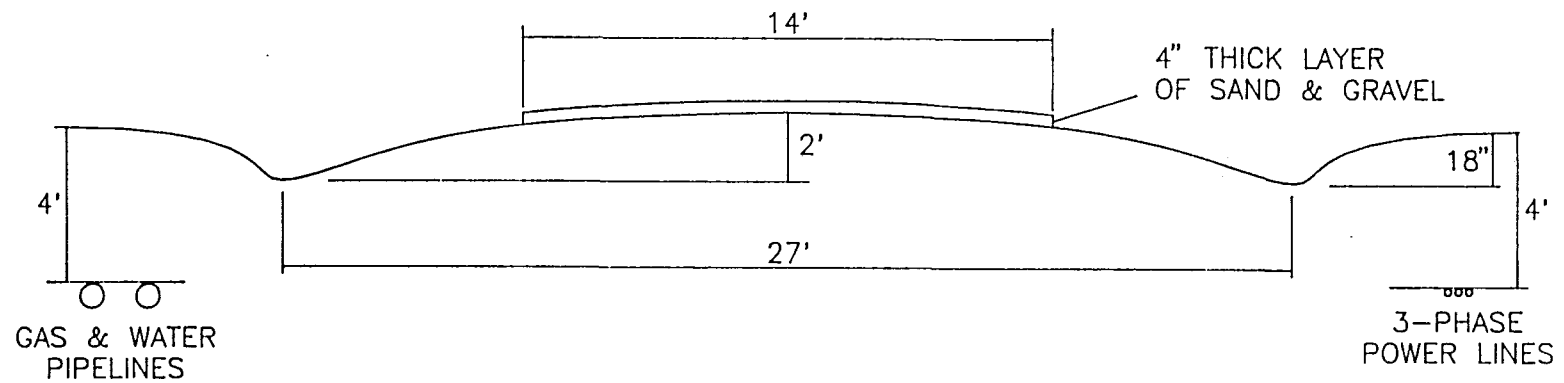
RE: Use of Water During Drilling Operations

As stated, water which we will be using is to be purchased from the Price River Water Improvement District (Tel. 801-637-6350). This has been arranged by Mr. Michael J. Farrens, Drilling Supervisor for River Gas of Utah, Inc. He has been in contact with Mr. Phillip Palmer. Mr. Farrens has discussed this arrangement with Mark Page of the Division of Water Rights (Tel. 801-637-1303) over the telephone. The Division of Water Rights is to furnish the Oil & Gas Division with a letter of approval concerning this matter.





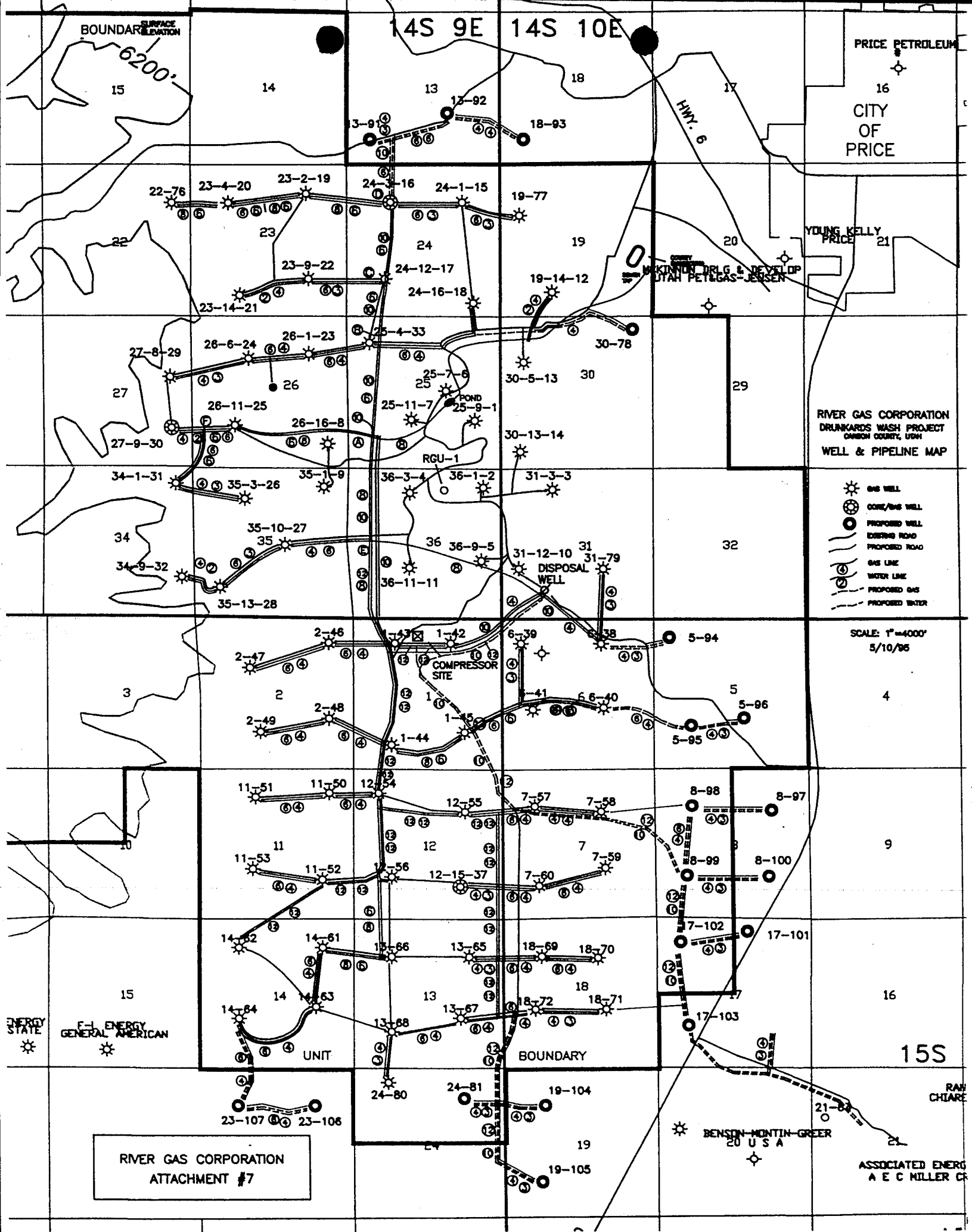
RIVER GAS CORPORATION



TYPICAL ROAD CROSS-SECTION

NOT TO SCALE

3/23/95



AmSouth Bank N.A.

1900 5th Avenue North
Birmingham, Alabama 35203-2610 USA

International Department

TELEX: 6827188

Cable: AMSOUBK8HM

S.W.I.F.T. AMSB US 44

AMENDMENT NUMBER: 003
TO LETTER OF CREDIT NUMBER: S304606
DATE: DECEMBER 29, 1993

BENEFICIARY:

STATE OF UTAH, DEPARTMENT OF
NATURAL RESOURCES, DIVISION OF
STATE LANDS AND FORESTRY
#3 TRIAD CENTER SUITE 400
355 WEST TEMPLE
SALT LAKE CITY, UTAH 84160-1204

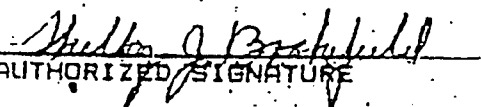
AT THE REQUEST OF RIVER GAS OF UTAH, INC.
AND FOR THE ACCOUNT OF SAME
WE HEREBY AMEND OUR LETTER OF CREDIT NUMBER S304606
DATED DECEMBER 14, 1990
OPENED IN YOUR FAVOR AS FOLLOWS:

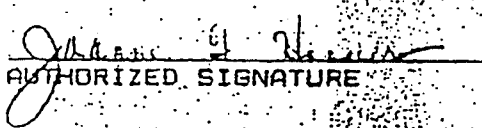
ACCOUNT PARTY'S ADDRESS IS NOW TO READ:
3600 WATERMELON ROAD, SUITE 204, NORTHPORT, ALABAMA 35476.

-LATEST NEGOTIATION DATE IS EXTENDED TO DECEMBER 13, 1994.

-ADD: THIS LETTER OF CREDIT WILL BE AUTOMATICALLY RENEWED
WITHOUT AMENDMENT FOR SUCCESSIVE PERIODS OF ONE (1) YEAR EACH,
UNLESS AT LEAST 60 DAYS PRIOR TO THE INITIAL EXPIRATION DATE
OR ANY SUCCESSIVE EXPIRATION DATE THE ISSUING BANK GIVES THE
BENEFICIARY NOTICE BY REGISTERED LETTER TO THE ADDRESS ABOVE
THAT THE ISSUING BANK ELECTS NOT TO HAVE THIS LETTER OF CREDIT
RENEWED FOR SUCH ADDITIONAL ONE YEAR PERIOD.

ALL OTHER TERMS AND CONDITIONS REMAIN UNCHANGED.
THIS AMENDMENT BECOMES AN INTEGRAL PART OF THE ORIGINAL LETTER OF
CREDIT AND IS TO BE ATTACHED THERETO.


AUTHORIZED SIGNATURE


AUTHORIZED SIGNATURE

RIVER GAS OF UTAH, INC.
ATTACHMENT #8

AmSouth Bank N.A.

1900 5th Avenue North
Birmingham, Alabama 35203-2610 USA

International Department

TELEX: 6827189
Cable: AMSOUBKBHM
S.W.I.F.T. AMSB US 44

AMENDMENT NUMBER: 004
TO LETTER OF CREDIT NUMBER: S304606
DATE: JANUARY 24, 1995

BENEFICIARY:

STATE OF UTAH, DEPARTMENT OF
NATURAL RESOURCES, DIVISION OF
STATE LANDS AND FORESTRY
#3 TRIAD CENTER SUITE 400
355 WEST TEMPLE
SALT LAKE CITY, UTAH 84180-1204


AT THE REQUEST OF RIVER GAS OF UTAH, INC. 3600 WATERMELON ROAD
SUITE 204 NORTHPORT, ALABAMA 35476
AND FOR THE ACCOUNT OF SAME
WE HEREBY AMEND OUR LETTER OF CREDIT NUMBER S304606
DATED DECEMBER 14, 1990
OPENED IN YOUR FAVOR AS FOLLOWS:

★ -ACCOUNT PARTY'S NAME IS NOW CHANGED TO:
RIVER GAS CORPORATION

-THE NAME OF THE ISSUING BANK IS CHANGED FROM AMSOUTH BANK N.A.
TO AMSOUTH BANK OF ALABAMA.

**REFERENCES HEREIN TO AMSOUTH BANK N.A. SHALL BE DEEMED TO REFER
TO AMSOUTH BANK OF ALABAMA.

ALL OTHER TERMS AND CONDITIONS REMAIN UNCHANGED.
THIS AMENDMENT BECOMES AN INTEGRAL PART OF THE ORIGINAL LETTER OF
CREDIT AND IS TO BE ATTACHED THERETO.



AUTHORIZED SIGNATURE

Attachment #9

Fotes et al 13-91

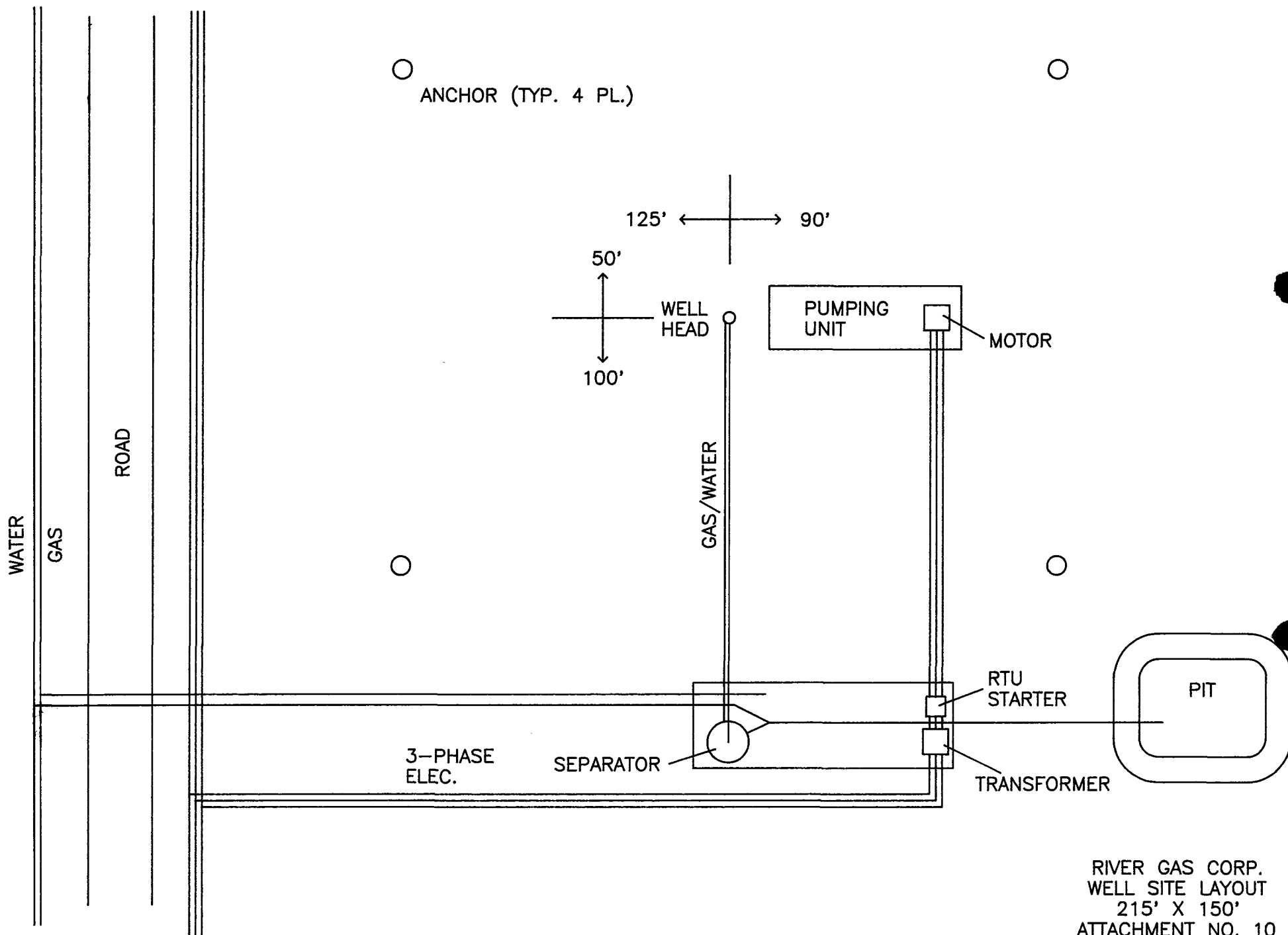
860' FWL, 860 ' FSL, SEC. 13, T14S, R09E

Selected Points to be Addressed in On-site Predrill Evaluation

Surface Owner: Lowdermilk Rock Products, Inc. Richard Lee, Pres.
P.O. Box 509 Helper, Ut. 84526 Ph. 801-472-3460

Surface Use Plan

- Point #2 Planned Access Roads - Access will be from Pinnacle Peak Road. A new road, approximately 2500' in length, will be constructed in order to access the proposed pipeline between proposed well and well #16 (See attachment #4)
- Point #3 Wells within 1-mile radius of proposed location - Three producing gas wells operated by River Gas Corporation are located < 1 mile south of proposed location (Attachment #4). According to Division of Water Rights, a water well was permitted 3/4 mile northwest of location by Anton Michelog in 1948.
- Point #4 Location of Production Facilities and Pipelines - See Attachment #4
- Point #6 Source of Construction Material - Other than native Mancos Shale, sand and gravel will be purchased from a local construction company
- Point #7 Waste Management Plan - All drill cuttings will be diverted to pit, as well as fluids encountered. Afterwards, the fluids will be allowed to evaporate and cuttings will be buried. Also, a portable bathroom facility will be provided during drilling operations
- Point #9 Well Site Layout - The separator will be located on the "cut" side of the location (See Attachment #10)



RIVER GAS CORP.
WELL SITE LAYOUT
215' X 150'
ATTACHMENT NO. 10



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor

Ted Stewart
Executive Director

James W. Carter
Division Director

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340
801-359-3940 (Fax)
801-538-5319 (TDD)

September 25, 1995

River Gas Corporation
511 Energy Center Boulevard
Northport, AL 35476

Re: Fotes et al 13-91 Well, 860' FSL, 860' FWL, SW SW, Sec. 13, T. 14 S., R. 9 E.,
Carbon County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann. 40-6-1 et seq., Utah Administrative Code R649-3-1 et seq., and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-007-30287.

Sincerely,

R. J. Firth
Associate Director

pjl

Enclosures

cc: Carbon County Assessor

Bureau of Land Management, Moab District Office

WAPD



Operator: River Gas Corporation

Well Name & Number: Fotes et al 13-91

API Number: 43-007-30287

Lease: Patented Land

Location: SW SW Sec. 13 T. 14 S. R. 9 E.

Conditions of Approval

1. General

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for Permit to Drill.

2. Notification Requirements

Notify the Division within 24 hours following spudding the well or commencing drilling operations. Contact Jimmie Thompson at (801)538-5340.

Notify the Division prior to commencing operations to plug and abandon the well. Contact Frank Matthews or Mike Hebertson at (801)538-5340.

3. Reporting Requirements

All required reports, forms and submittals shall be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

4. On-site Predrill Evaluation and Review

Compliance with all requirements and stipulations developed during the onsite evaluation and review.

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

OCT 13 1995

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work

DRILL ☒DEEPEN ☐PLUG BACK ☐

b. Type of Well

Oil Well ☐Gas Well ☒

Other Coalbed Methane

Single Zone ☐Multiple Zone ☐

2. Name of Operator

River Gas Corporation

3. Address of Operator

511 Energy Center Boulevard Northport, Al. 35476

4. Location of Well (Report location clearly and in accordance with any State requirements.)*

At surface 860' FWL, 860' FSL, Sec. 13, T14S, R9E

At proposed prod. zone

same

14. Distance in miles and direction from nearest town or post office*

3 miles west of Price, Ut.

15. Distance from proposed*

location to nearest property or lease line, ft. (Also to nearest drilg. line, if any)

16. No. of acres in lease

360

17. No. of acres assigned to this well

40

18. Distance from proposed location* to nearest well, drilling, completed, or applied for, on this lease, ft.

2800'

19. Proposed depth

2600'

20. Rotary or cable tools

Rotary

21. Elevations (Show whether DF, RT, GR, etc.)

5712' GR surveyed

22. Approx. date work will start*

September 20, 1995

23.

PROPOSED CASING AND CEMENTING PROGRAM

Size of Hole	Size of Casing	Weight per Foot	Setting Depth	Quantity of Cement
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Signed Terry D. Burns *Terry D. Burns* Title Geologist

Date August 29, 1995

(This space for Federal or State office use)

APR 10.

Approved by

ACCEPTED

Title

Branch of Fluid Minerals
Moab District

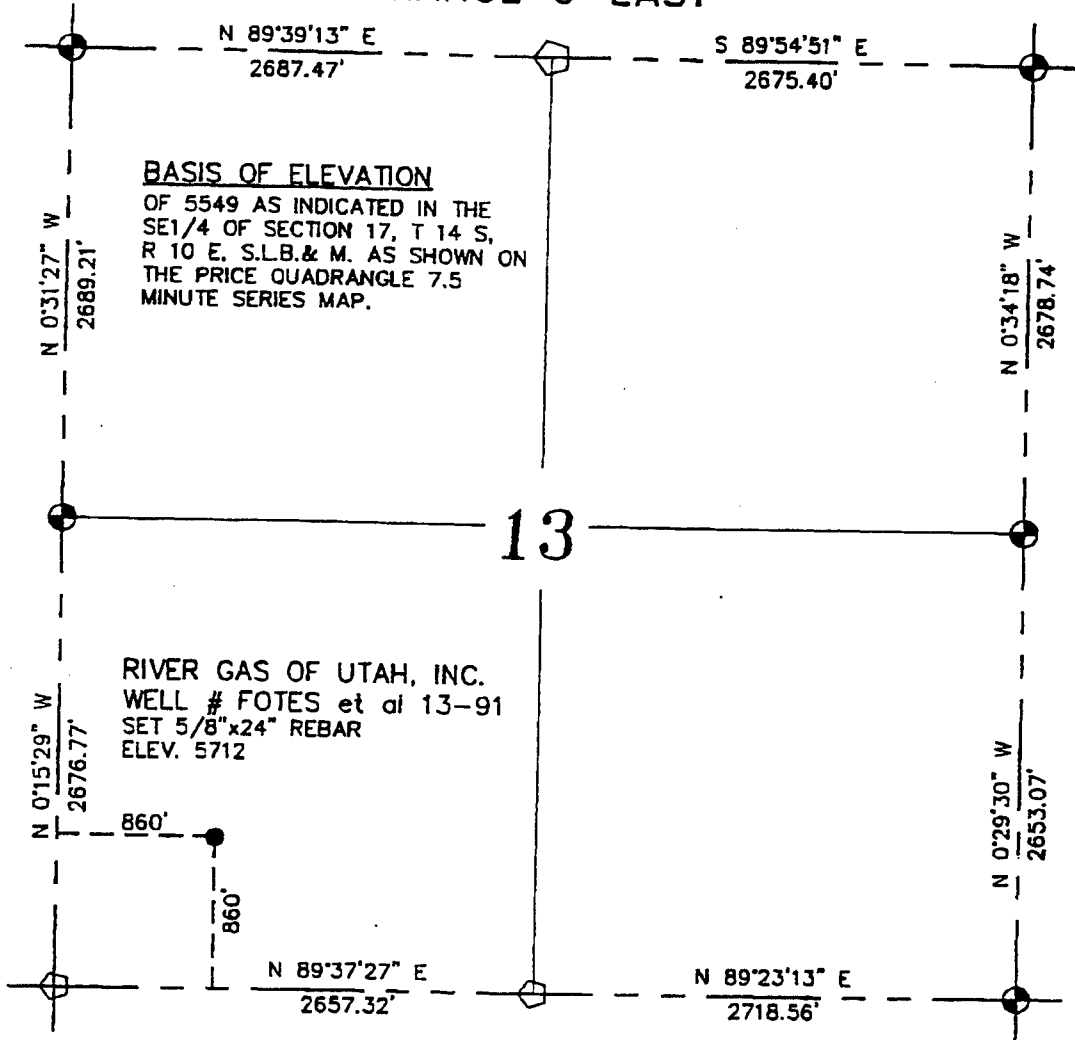
Date

OCT 6 1995

*See Instructions On Reverse Side

RANGE 9 EAST

TOWNSHIP 14 SOUTH



ENGINEER'S CERTIFICATE

I, EVAN E. HANSEN, DO HEREBY CERTIFY THAT I AM A REGISTERED LAND SURVEYOR AND PROFESSIONAL ENGINEER HOLDING CERTIFICATE NO. 145656 AS PRESCRIBED UNDER THE LAWS OF THE STATE OF UTAH. I FURTHER CERTIFY THAT I HAVE MADE A SURVEY OF THE TRACT OF GROUND SHOWN AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

Evan E. Hansen
EVAN E. HANSEN

3/25/95
DATE

SW1/4 SW1/4 SEC. 13, T 14 S, R 9 E, S.L.B. & M.

Empire Engineering

1665 E. Sagewood Rd. Price, Utah 84501

RIVER GAS OF UTAH, INC.
WELL # FOTES et al 13-91

Drawn By:
THK

Approved By:
EEH

Drawing No.

Date:
3-18-95

Scale:
1"=1000'

EEOG-95-02

SHEET 1 OF 2



State of Utah
Division of Oil, Gas & Mining (OGM)

**ON-SITE PREDRILL EVALUATION AND REVIEW
FOR
APPLICATION FOR PERMIT TO DRILL (APD)**

OPERATOR

River Gas Corporation

WELL NO.

Fotes et al 13-91

LEASE NO.

Patented Land

API No.

43-007-30287

LEASE TYPE

State ☐

Fee ☒

PROPOSED LOCATION

1/4/1/4

SW SW

SECTION

13

TOWNSHIP

14 South

RANGE

9 East

COUNTY

Carbon

FIELD

Undesignated

SURFACE

860' FSL 860'FWL

BOTTOM HOLE

Same as Above

GPS COORDINATES

North 383523 (truncated) East 511292

SURFACE OWNER

Lowdermilk Rock Products, Inc. P.O. Box 509 Helper, UT 84526
Phone (801)472 3460

SURFACE AGREEMENT

Yes ☒

No ☐

LOCATING AND SITING

☐

UAC R649-2-3.

Unit

☒

UAC R649-3-2. General

☐

UAC R649-3-3. Exception

☐

UCA 40-6-6. Drilling Unit

--

Cause No.

DRILLING PROGRAM

The following information should be included in the Application for Permit to Drill submitted.

- 1 Surface Formation and Estimated Tops/Geologic Markers
- 2 Estimated Depths and Names of Anticipated Water, Oil, Gas or other Mineral Bearing Formations

(All fresh water sands encountered during drilling shall be recorded and reported to the Division on Form 7.)
- 3 Well Control Equipment & Testing Procedures
- 4 Proposed Casing and Cementing Program
- 5 Mud Program, Circulating Medium, and Monitoring equipment
- 6 Coring, Testing, and Logging Program
- 7 Expected Bottom Hole Pressures and any anticipated Abnormal Pressures, Temperatures or Potential Hazards such as hydrogen sulfide, expectations and contingency plans for mitigating identified hazards
- 8 Any other information relative to the proposed operation.

SURFACE USE PLAN

1. Current Surface Use

Rangeland

2. Proposed Surface Disturbance

See attached drill plat.

3. Existing Roads

Runs generally east-west about 70' off the north edge of the drill pad.

4. Planned Access Roads (include length of new road, length of existing road to be upgraded, maximum disturbed and travel surface widths, maximum grades, turnouts, surface materials, drainage, cattleguards)

North app. 70' from the northwest corner of the pad to the existing road. A bar ditch culvert will be installed. In addition, a new, 2500' long, pipeline access road is planned to run from the existing road near this location to the River Gas #16 well ~1/2 mile south.

5. Location of existing wells within one-mile radius of proposed location, include water, injection, producing, drilling with present status of each well

Within a mile of the location River Gas Corporation operates three gas wells and, according to the Division of Water Rights, a water well was permitted in 1948 for a location about 3/4 of a mile to the northwest.

6. Location of Production Facilities and Pipelines

Questar 6" and 16" gas pipelines running north-south ~1000' east of the location.

7. Waste Management Plan

Portable toilets and dumpsters will be employed.

8. Ancillary Facilities

None

9. Well Site Layout

See attached, modified drilling location plat provided @ onsite meeting.

10. Reserve Pit

a. Characteristics

50'x50'x6' in Mancos Shale derived alluvial soil.

b. Lining (Site ranking form attached)

Native soil as above.

11. Surface Restoration Plans

Surface restoration as per Surface Owner Agreement. Affidavit or copy of Surface Owner Agreement will be provided.

SURFACE GEOLOGY AND OTHER OBSERVATIONS

1. Regional Setting/Topography

The location is about 1.0 mile east of the western Book Cliffs (below the Wasatch Plateau) beside the floodplain of dry Pinnacle Wash, amongst low erosional hills developed in the Mancos Shale and western Book Cliff colluvium. Minor arroyos are nearby. The topography dips to the east toward the Price River app. 2.5 miles distant.

2. Soil Type and Characteristics

Primarily clay alluvium with desseminated sand and gravel.

3. Surface Formation & Characteristics

Mancos Shale weathering to light tan.

4. Erosion/Sedimentation/Stability

App. 20' deep dry wash ~30' south of the pad. Stability is OK.

5. Paleontological Potential Observed

None

6. Location and Type of Water Supply (include Division of Water Rights approval or identifying number)

City of Price Water District.

7. Cultural Resources/Archaeology (if proposed location is on State land, has an archaeology clearance been obtained?)

Private surface.

8. Affected Floodplain and/or Wetlands

Is a 404 dredge and fill permit required? (Any activity which will change the bottom elevation of the "waters of the United States" including wetlands, natural and artificially created waters, and even some drainages may require a permit from the Army Corps of Engineers)

No-Steve Prince and I discussed the possibility of getting an area clearance from the local Corp of Engineers office for the River Gas operating area to simplify this function.

9. Flora/Fauna

(Briefly describe the flora found on the proposed site and the fauna evidenced or sighted on or near the proposed location)

Rabbitbrush, greasewood, indian ricegrass, etc.

Comments

Changes made to site layout plat:

1. reserve pit is moved to the west edge of the pad.
2. access road is moved to the northwest corner of the pad.
3. the west side of the pad is moved 25' farther west.
4. Recommend that the 2500' pipeline access road receive three 18" culverts and one 24" culvert in certain minor arroyos and a concrete-floored low water crossing in Pinnacle Wash.

Onsite Participants

Larry Jensen & Steve Prince

Chris Kierst

9/14/95 2:29 PM

OGM Representative

Date and Time

STATEMENTS OF BASIS

FOR

OGM Review and Approval of Application for Permit to Drill (APD)

Operator River Gas Corporation

Well Fotes et al 13-91

ENGINEERING/LOCATING and SITING

The proposed location meets the location and siting requirements of R649-3-2. The application and proposed casing and drilling plan appear to be consistent with accepted industry standards of practice and sound engineering design. A casing design safety check is attached. Blow out prevention and monitoring/contingency plans are adequate.

Signature Frank Matthews

Date 22-Sept-95

GEOLOGY/GROUND WATER

Ground water should not be encountered until the producing gas zone is reached. The proposed casing and cement program will adequately protect any water encountered.

Signature Dan Jarvis

Date 09/21/95

SURFACE

An onsite evaluation was conducted and the site characterized and photographed on 9/14/95 with River Gas Corporation and dirt contractor personnel. The provided drilling layout plat was modified as described previously. Provision was made to ensure the integrity of groundwaters, drainage patterns, litter control, other resources and local infrastructure. A course of action was established if operator personnel observe that the sediments are likely to be more transmissive than expected. I believe the other impacts of this location on the environment are minor and that the site will be rehabilitated to a standard which is conformable with the surface owner agreement.

Opinions and recommendations were requested and made regarding the need for culverts and crossings along a proposed road originating alongside this location.

Signature Chris Kierst

Date 9/14/95

STIPULATIONS for APD Approval

1. If organized lenses of sand or gravel are encountered while digging the pit the operator will seek D.O.G.M. guidance regarding the need for a more competent liner.
2. A culvert will be laid in the bar ditch of the existing road to accomodate the access road.
3. Site infrastructure as per modified drilling location plat provided by Steve Prince at onsite meeting.

ATTACHMENTS

4 photos and drilling location plat.

Evaluation Ranking Criteria and Ranking Score
For Reserve and Onsite Pit Liner Requirements

Site-Specific Factors	Ranking Score	Final Ranking Score
Distance to Groundwater (feet) >200 100 to 200 75 to 100 25 to 75 <25 or recharge area	0 5 10 15 20	0
Distance to Surf. Water (feet) >1000 300 to 1000 200 to 300 100 to 200 < 100	0 2 10 15 20	0
Distance to Nearest Municipal Well (feet) >5280 1320 to 5280 500 to 1320 <500	0 5 10 20	0
Distance to Other Wells (feet) >1320 300 to 1320 <300	0 10 20	0
Native Soil Type Low permeability Mod. permeability High permeability	0 10 20	0

Fluid Type Air/mist Fresh Water TDS >5000 and <10000 TDS >10000 or Oil Base Mud Fluid containing significant levels of hazardous constituents	0 5 10 15 20	0
Drill Cuttings Normal Rock Salt or detrimental	0 10	0
Annual Precipitation (inches) <10 10 to 20 >20	0 5 10	5
Affected Populations <10 10 to 30 30 to 50 >50	0 6 8 10	10
Presence of Nearby Utility Conduits Not Present Unknown Present	0 10 15	0

Final Score	15
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STATE OF UTAH, DIV OF OIL, GAS & MINERALS

Operator: RIVER GAS CORPORATION	Well Name: FOTES ET AL 13-91
Project ID: 43-007-30287	Location: SEC. 13 - T14S - R9E

Design Parameters:

Mud weight (8.33 ppg) : 0.433 psi/ft
 Shut in surface pressure : 1054 psi
 Internal gradient (burst) : 0.027 psi/ft
 Annular gradient (burst) : 0.000 psi/ft
 Tensile load is determined using air weight
 Service rating is "Sweet"

Design Factors:

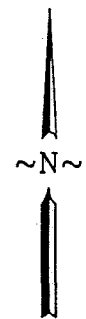
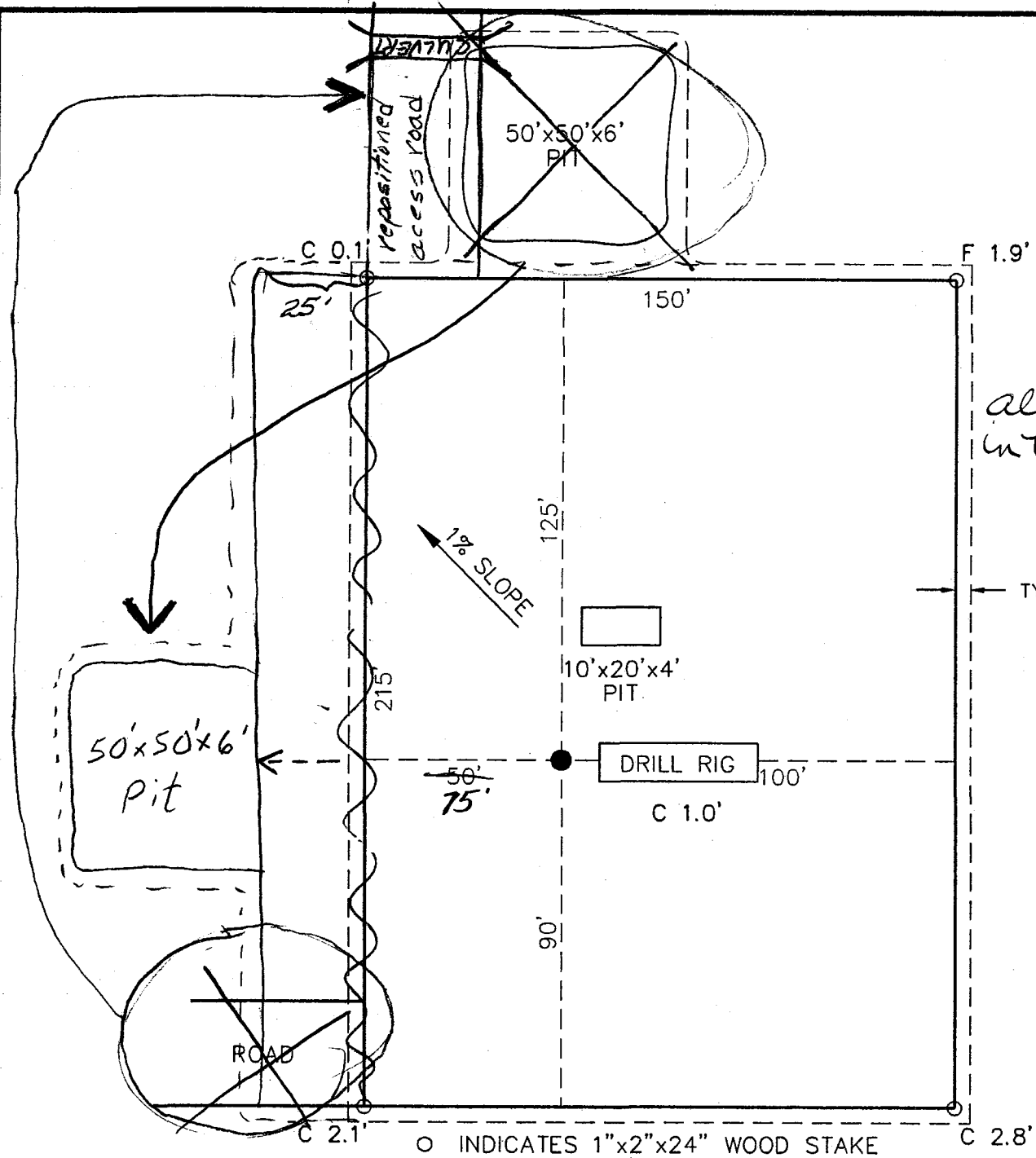
Collapse : 1.125
 Burst : 1.00
 8 Round : 1.80 (J)
 Buttress : 1.60 (J)
 Other : 1.50 (J)
 Body Yield : 1.50 (B)

Length (feet)		Size (in.)	Weight (lb/ft)	Grade	Joint	Depth (feet)	Drift (in.)	Cost	
1	2,600	5.500	17.00	WC-75	LT&C	2,600	4.890		
	Load (psi)	Collapse Strgth (psi)	S.F.	Burst Load (psi)	Min Int Strgth (psi)	Yield S.F.	Tension Load (kips)	Strgth (kips)	S.F.
1	1125	6040	5.369	1125	7300	6.49	44.20	327	7.40 J

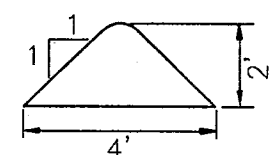
Prepared by : MATTHEWS, Salt Lake City, Utah
 Date : 09-22-1995
 Remarks :

Minimum segment length for the 2,600 foot well is 1,500 feet.
 SICP is based on the ideal gas law, a gas gravity of 0.69, and a mean gas
 temperature of 92°F (Surface 74°F , BHT 110°F & temp. gradient 1.400°/100 ft.)
 String type: Production
 The mud gradient and bottom hole pressures (for burst) are 0.433 psi/ft and
 1,125 psi, respectively.

NOTE: The design factors used in this casing string design are as shown above. As a general
 guideline, Lone Star Steel recommends using minimum design factors of 1.125 - collapse (with
 evacuated casing), 1.0 - (uniaxial) burst, 1.8 - API 8rd tension, 1.6 - buttress tension,
 1.5 - body yield tension, and 1.6 - EUE 8rd tension. Collapse strength under axial tension
 was calculated based on the Westcott, Dunlop and Kemler curve. Engineering responsibility
 for use of this design will be that of the purchaser.
 Costs for this design are based on a 1987 pricing model. (Version 1.07)



SCALE: 1" = 40'



TYP. BERM SURROUNDING PAD

REVISED: 4-22-95

SW1/4 SEC. 13, T 14 S, R 9 E, S.L.B. & M.		
Empire Engineering		
1665 E. Sagewood Rd. Price, Utah 84501		
RIVER GAS CORPORATION		
WELL # FOTES et al 13-91		
Drawn By: THK	Approved By: EEH	Drawing No.
Date: 4-15-95	Scale: 1" = 40'	EEOG-95-02
		Sheet: 2 of 2

The summation of all of the above ranking scores will yield one value which shall be used to determine the appropriate type of containment, on a case-by-case basis. The sensitivity levels are as follows:

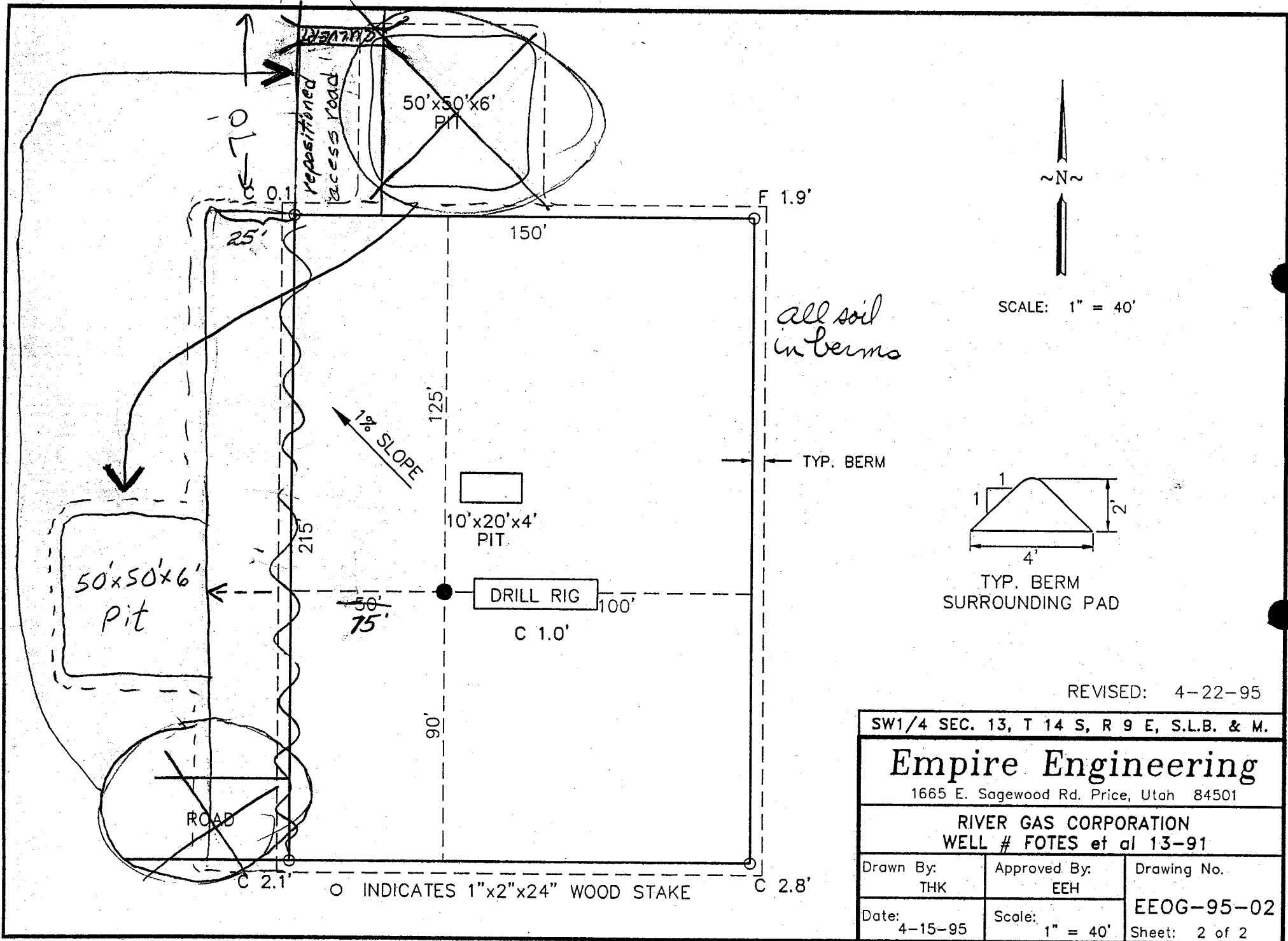
- Level I Sensitivity: For scores totaling ≥ 20
- Level II Sensitivity: For scores totaling 15 to 19
- Level III Sensitivity: For scores totaling < 15

Containment Requirements According to Sensitivity Level

- Level I: Requires total containment by synthetic liner, concrete structure or other type of total containment structure or material.
- Level II: Bentonite or other compatible lining is discretionary depending on the fluid to be contained and environmental sensitivity.
- Level III: No specific lining requirements.

OTHER GUIDELINES FOR PITS

1. Unlined pits shall not be constructed on areas of fill materials.
2. A pit shall not be constructed in a drainages or floodplain of flowing or intermittent streams.
3. Synthetic liners used for lining reserve pits, shall be of 12 mil thickness or greater and shall be compatible with the fluid to be contained. Synthetic liners used for lining onsite pits with a longer expected life shall be a minimum of 30 mil thickness or as approved by the Division.
4. Synthetic liners shall be installed over smooth fill material which is free of pockets, loose rocks or other materials which could damage the liner.
5. Monitoring systems for pits or closed mud systems may be required for drilling in sensitive areas.





River Gas Corp. Fotes 13-91 location
presite meeting 9/14/95
view south-bank of Pinnacle Wash
visible

CKerst

River Gas Corp. Fotes 13-91 location
presite meeting 9/14/95

View ~~West~~ East

CKerst

River Gas Corp. Fotes 13-91 location
presite meeting 9/14/95

View West

CKerst

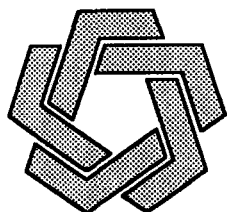
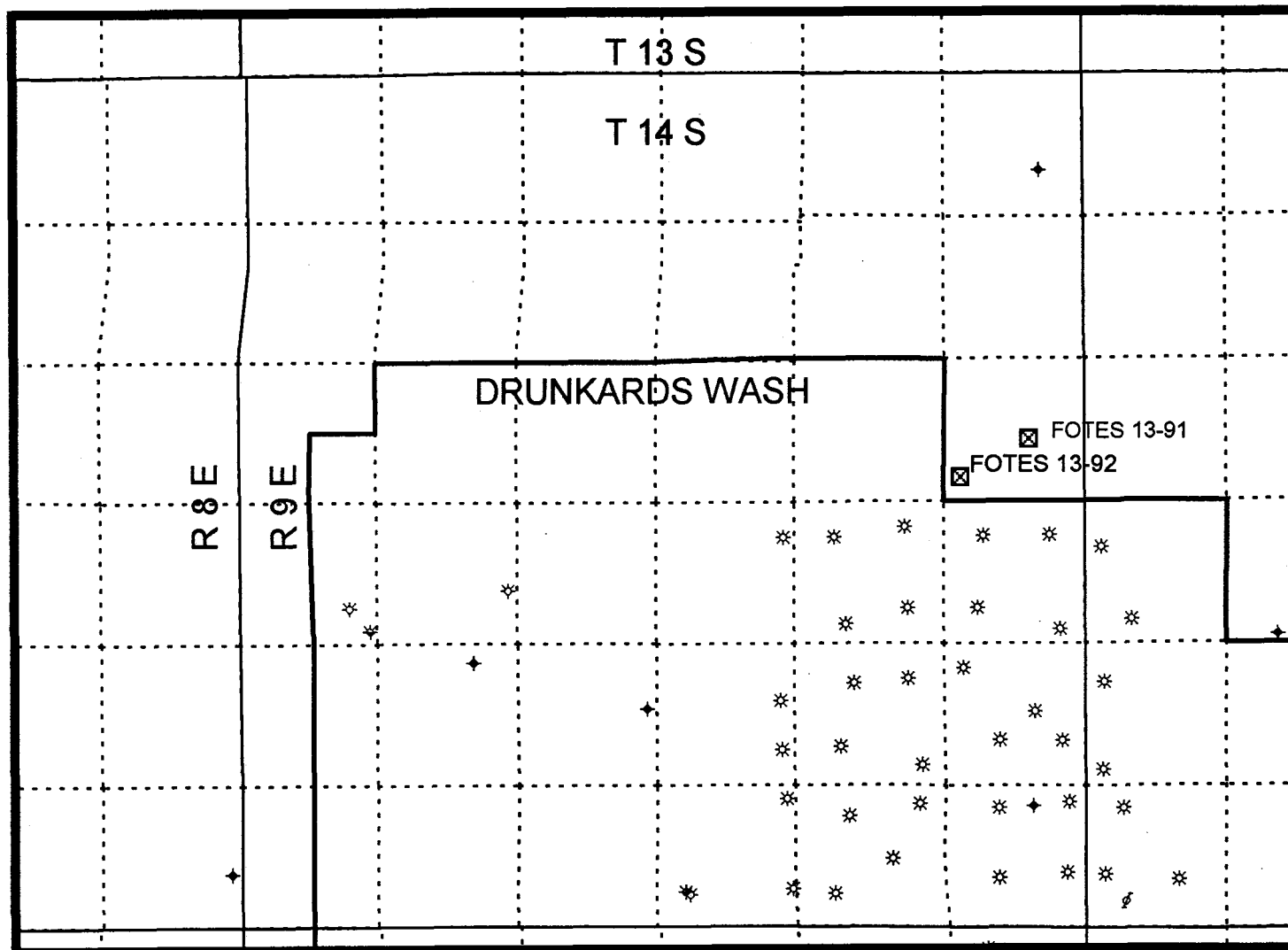
River Gas Corp. Fotes et al 13-91
location

presite meeting 9/14/95

View to North - stake 1/4" to right of
gray vehicle

CKerst

RIVER GAS CORPORATION
DRUNKARDS WASH DEVELOPMENT
SEC. 13, T14S, R9E
CARBON COUNTY, STATE SPACING



STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS & MINING

DATE: 9/6/95



State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor

Ted Stewart
Executive Director

James W. Carter
Division Director

1594 West North Temple, Suite 1210

Box 145801

Salt Lake City, Utah 84114-5801

801-538-5340

801-359-3940 (Fax)

801-538-7223 (TDD)

February 28, 1997

Mr. Terry Burns
River Gas Corporation
511 Energy Center Boulevard
Northport, Alabama 35476

Re: Fotes et al 13-91 Well, Sec. 13, T. 14S, R. 9E, Carbon County, Utah,
API No. 43-007-30287

Dear Mr. Burns:

Due to excessive time delay in commencing drilling operations, approval to drill the subject well is hereby rescinded, effective immediately.

Please note that a new Application for Permit to Drill must be filed with this office for approval prior to the commencement of any future work on the subject location.

If any previously unreported operations have been performed on this well location, it is imperative that you notify the Division of Oil, Gas and Mining immediately.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Don Staley'.

Don Staley
Administrative Manager
Oil and Gas

cc: R.J. Firth
K.M. Hebertson
Well File